QuickSpecs

Compaq Evo Notebook N400c

Overview

What's New

- Sleek New Design
- Innovative New MultiPort
- Full sized keyboard
- Dual battery support
- Intel Low-Voltage Mobile Pentium® III 700 MHz processor with SpeedStep™ technology
- 2X AGP graphics with 8MB SDRAM
- Three-year warranty

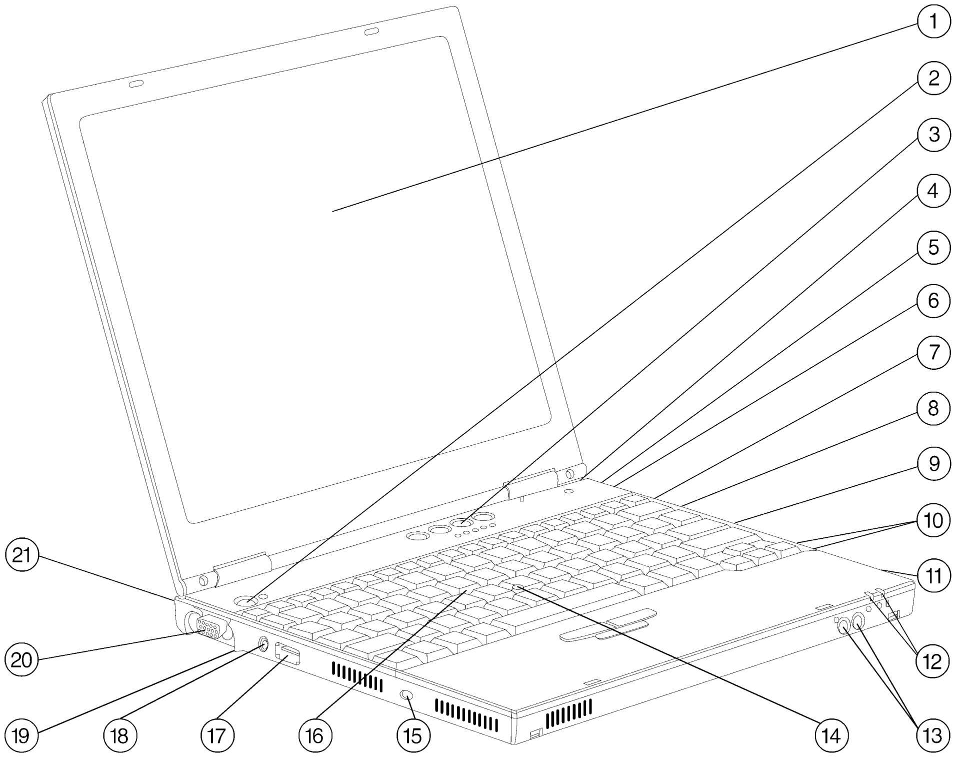
At A Glance

- Weighs only 3.5 lb/1.59kg
- 12.1-inch XGA CTFT display
- 128MB SDRAM upgradeable to 512MB
- 20-GB User removable SMART hard drive
- Integrated mini PCI 56K v.90 modem plus 10/100 NIC
- Complete set of system ports
- Windows 2000 pre-installed /Windows NT 4.0 dual restore or Windows 98 SE
- Protected by a three-year, Worldwide Limited Warranty — Certain restrictions and exclusions apply. Consult the Compaq Customer Support Center for details.

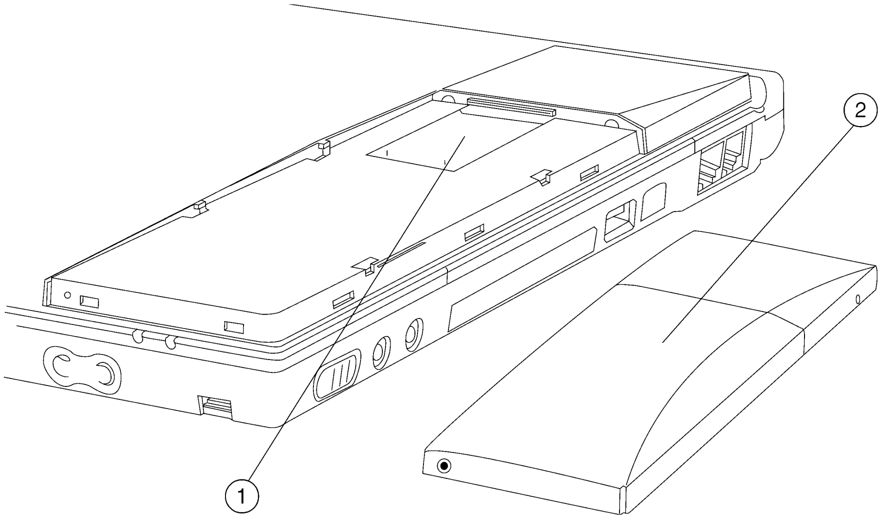
What's Special

- Portability and Productivity
- Ultra-light weight – 3.5 lbs
- Support for up to 4 batteries*
- Optional Mobile Expansion Unit providing Multimedia, storage and enhanced security features
- Magnesium display enclosure
- Compatible with current Compaq enterprise docking solutions
- Industry leading PC lifecycle solutions

Note: **Requires optional MEU.*



1. Color Display
2. Suspend/Resume Button
3. Easy Access Internet Buttons
4. Rear System Ports (Parallel, Serial, TV Out)
5. RJ-11
6. RJ-45
7. IR
8. USB (1 of 2)
9. PC Card Slot
10. Audio In/Out Jacks
11. On/Off Button
12. Power/Battery LEDs
13. External Volume Control/Mute
14. Point Stick Pointing Device
15. Security Cable Slot
16. Full-size Keyboard
17. USB (2 of 2)
18. AC Power Connector
19. Internal Lithium-Ion Battery
20. VGA Out Port
21. Secondary Battery Connector



1. Multiport Connector
2. Multiport Module Cover

Standard Features

Processor and Panel

12.1-inch TFT XGA display with 1024x768 resolution and up to 16.7M colors.

700 MHz Intel Low-Voltage Mobile Pentium® III processor with SpeedStep™ technology

Memory

Standard 128 MB 100 MHz SDRAM

Maximum 512 MB 100 MHz SDRAM

Note: Due to the non-industry standard nature of some third-party memory modules, we strongly recommend using only Compaq branded memory modules to ensure compatibility.

Communications

Type III Mini PCI

56K (V.90) Modem plus 10/100 NIC Combo

Note: Designed only to allow faster downloads from V.90 compliant sources. Maximum achievable download transmission rates currently do not reach 56 KB/s, and will vary with line conditions.

Note: Communication availability is subject to country regulatory approval.

Keyboard

Full sized desktop compatible keyboard, special feature hotkeys for instant access to power conservation, QuickLock/QuickBlank (ex: FN+F6), toggle between internal and external, or simultaneous displays, battery gauge, MultiPort on/off, speaker volume control, and brightness.

Easy Access Internet Buttons

The Compaq *Evo*™ Notebook N400c comes with four Easy Access Buttons designed to increase customer productivity by providing one-touch access to helpful Compaq information, favorite Internet destinations, files, or applications.

Pointing Device

Point Stick

PC Card Slots

One Type II PC Card Slot that supports both 32-bit CardBus (Full support in Windows 9.x and Windows 2000) and 16-bit PCMCIA Cards.

Storage

Diskette Drives	1.44 MB *
Optical Drives	CD-RW Drive *
	8X DVD-ROM Drive*
	24X CD-ROM Drive *
Hard Drive	20-GB SMART
	Note: * Requires optional Mobile Expansion Unit (MEU).

Multimedia

Compaq *Premier•Sound*™ for enhanced stereo audio (with optional MEU)
Integrated 16-bit Sound Blaster Pro-compatible stereo audio
Integrated speaker and microphone
External volume controls
Headphone-out
Microphone-in
Software MPEG1 support
DVD movie playback software
8X DVD-ROM Drive with DVD movie playback *(with optional MEU)*
24X Max CD-ROM Drive *(with optional MEU)*
2X AGP graphics
8MB SDRAM

Standard Features

Interfaces

MultiPort	1
PC Card Slot	One Type II
Enhanced Parallel Port EPP/ECP	1
Serial Port	1
External Monitor	1
TV Out	1
Headphone/Line-out	1
Microphone in	1
AC Power	1
RJ-11 (modem)	1 (Model dependent)
RJ-45 (NIC)	1 (Model dependent)
Infrared Port	1 (4 Mb/s support) (IrDA 4 MB compliant. IR performance will vary depending on performance of IR peripherals and application used.)
USB Port	2
LED Status Indicators	7

Graphics

ATI Mobility M1 with 8MB SDRAM

Operating System

One of the following:

Microsoft Windows 2000 pre-installed/ Windows NT 4.0 dual restore
Microsoft Windows 98 SE
Note: Windows NT 4.0 is provided on CD.

Software

Compaq Insight Management Agents
Diagnostics for Windows
DVD Playback Software (with optional MEU)
Altiris eXpress Client
Compaq Power Management
Compaq Security Management
Safety and Comfort Guide
Acrobat Reader
Reference Guide

System Recovery

Each unit is shipped with a CD kit for quick recovery (erases hard disk and restores manufacturer installed image) and software recovery (installs only selected standard software)

Intelligent Manageability

Compaq Intelligent Manageability, a key component of PC Lifecycle Solutions, is the broad set of manageability features found on Compaq Deskpro EN desktops, Armada notebooks, Winklerpro Clients, Professional Workstation, iPAQ Deskside and ProLiant server products. These best-in-class features on PC clients comply with industry standards, such as DMI and Wired for Management, while pioneering new ground in client manageability. Compaq introduced the industry's first line of manageable clients in 1995 and has been driving the industry ever since. With Compaq's lifecycle management philosophy, enterprises have all of the pieces for end-to-end management and proven tools for hassle-free management of PCs. The combination of these tools will significantly lower the Total Cost of Ownership of managing the computing environment. Intelligent Manageability offers solutions in the areas of Initial Configuration and Deployment, Asset Tracking and Security, Software Updating and Management, and Fault Notification and Recovery. For more information, visit these Compaq Web sites: http://www.compaq.com/im; http://www.compaq.com/easydeploy; http://www.compaq.com/solutions/pcsolutions.

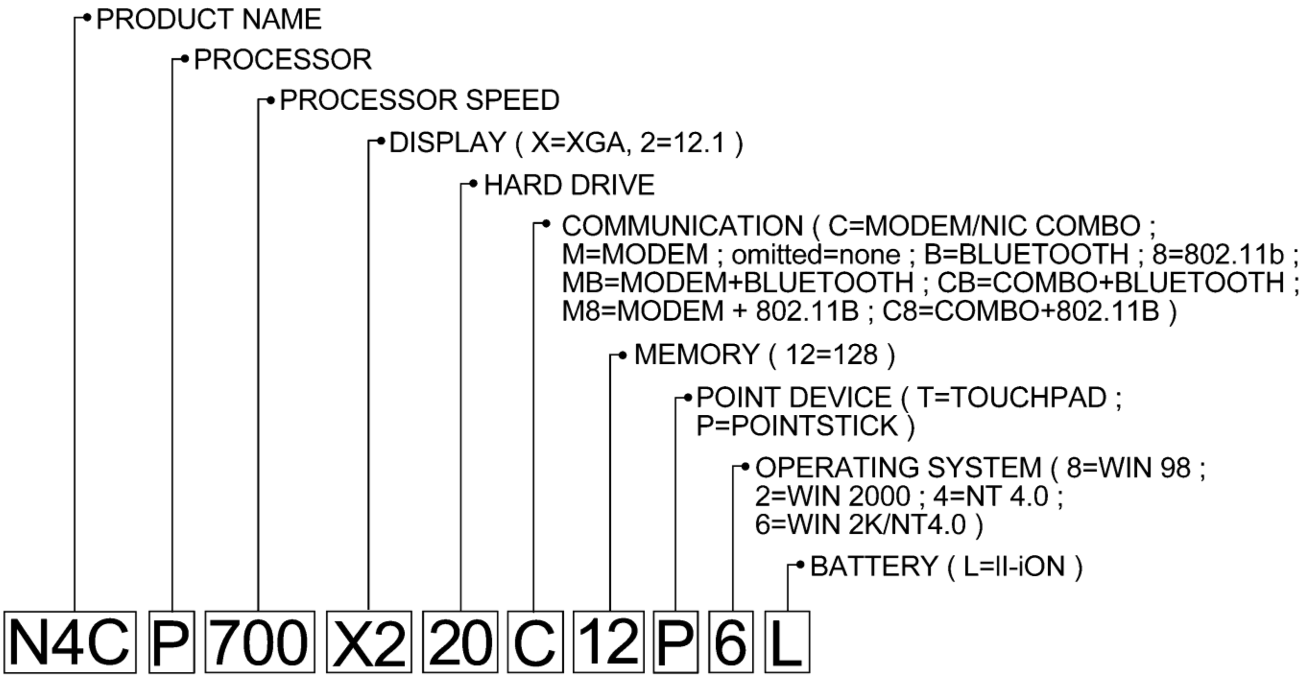
Standard Features

Security	Configuration Control Hardware Memory Change Alert Ownership Tag Setup Password Power-On Password DriveLock QuickLock QuickBlank Enabled for PC SmartCard options
Power Supply	New External AC Adapter (only .39 lbs); 6-foot power cord included. Total length including External AC adapter is 12 feet (3.66 Meters)
Battery	4-cell internal main Li-ion battery supplies over two and a half hours of battery life; over five hours achieved using secondary external battery. Note: Actual results may vary with product model, configuration, and individual usage. Compaq results of 2:31 (hr:min) were achieved running the eTesting Labs Inc.'s BatteryMark TM Test version 4.0.1 on an Compaq *Evo* Notebook N400c with an Intel Pentium III 700 MHz CPU, 12.1-inch XGA panel, 128 MB RAM, 20 GB HDD, 4-cell Li-ion battery, and combination NIC/modem. System parameters were set according to Ziff Davis recommendations: panel brightness 50%, hard drive standby and video idle time 3 minutes, Intel Speedstep battery optimized mode. Note: This test was performed without independent verification by eTesting Labs Inc. eTesting Labs Inc. makes no representations or warranties as to the result of the test. BatteryMark is a trademark of Ziff Davis Publishing Holdings Inc., and affiliate of eTesting Labs Inc., in the U.S. and other countries.
Power Conservation	Intel SpeedStep technology (allows a Battery Optimized Mode where CPU draws 50% of normal power yet affords 70 to 80% of maximum PIII processing speed) Hibernation Instant-on via Standby Pop-ups with three presets One custom level of power conservation ACPI compliant
MultiBay Devices *(with optional MEU)*	MultiBay devices may be swapped with the system powered on (hot) or in suspend mode (warm) under Windows 98 SE or Windows 2000 (except MultiBay Zip drive or MultiBay secondary hard drive). MultiBay devices can be swapped with system power off under any supported operating system.
MultiPort	Integrated MultiPort expands functionality via user removable MultiPort Modules. MultiPort modules can provide integrated wireless communications and enhanced security features. MultiPort can be hotswapped with the system powered on (hot) or in suspend mode (warm) under any supported operating system. The MultiPort interface is based on the USB 1.1 Standard Specification. Note: Windows NT and Windows 95 do not support USB technology.
Service and Support	Compaq Services includes a three-year, Worldwide Limited Warranty, pick-up or carry-in, toll-free 7x24 hardware technical phone support. Optional services include; upgrade to three years standard warranty, onsite warranty, application and operating system support. Note: Certain restrictions and exclusions apply. Consult the Compaq Customer Support Center for details.

Standard Features

Naming Convention

The Etymology of a Model name:


PRODUCT NAME
PROCESSOR
PROCESSOR SPEED
DISPLAY (X=XGA, 2=12.1)
HARD DRIVE
COMMUNICATION (C=MODEM/NIC COMBO ; M=MODEM ; omitted=none ; B=BLUETOOTH ; 8=802.11b ; MB=MODEM+BLUETOOTH ; CB=COMBO+BLUETOOTH ; M8=MODEM + 802.11B ; C8=COMBO+802.11B)
MEMORY (12=128)
POINT DEVICE (T=TOUCHPAD ; P=POINTSTICK)
OPERATING SYSTEM (8=WIN 98 ; 2=WIN 2000 ; 4=NT 4.0 ; 6=WIN 2K/NT4.0)
BATTERY (L=lI-iON)
N4C
P
700
X2
20
C
12
P
6
L

Standard Features

Models

N4CP700X220C12P8L *470013-470*	**Display**	12.1-inch color TFT XGA	
	Processor	Low Voltage Intel Mobile Pentium III 700 MHz	
	Cache Memory	256KB, L2 Cache	
	Memory	Standard	128 MB SDRAM
		Maximum	512 MB SDRAM
	Optical Drive	None	
	Hard Drive	20-GB SMART	
	Modem	Type III Mini PCI 56K (V.90) modem plus 10/100 NIC Combo	
	Graphics	ATI Mobility M1-8MB SDRAM	
	Audio	Compaq *Premier•Sound*™	
	Operating System	Windows 98SE	
	MultiPort		

N4CP700X220C12P6L *470013-471*	**Display**	12.1-inch color TFT XGA	
	Processor	Low Voltage Intel Mobile Pentium III 700 MHz	
	Cache Memory	256KB, L2 Cache	
	Memory	Standard	128 MB SDRAM
		Maximum	512 MB SDRAM
	Optical Drive	None	
	Hard Drive	20-GB SMART	
	Modem	Type III Mini PCI 56K (V.90) modem plus 10/100 NIC Combo	
	Graphics	ATI Mobility M1-8MB SDRAM	
	Audio	Compaq *Premier•Sound*™	
	Operating System	Windows 2000/Windows NT 4.0	
	MultiPort		

Options

Memory	256-MB Memory Upgrade	161554-B21
	128-MB Memory Upgrade	400313-B21
	64-MB Memory Upgrade	400312-B21
	(Due to the non-industry standard nature of some third-party memory modules, we strongly recommend using only Compaq branded memory modules to ensure compatibility.)	
Monitors	TFT8020 Flat Panel Color 18-inch (carbon)	159244-001
	TFT5010 Flat Panel Color 15-inch (carbon)	154486-001
	P1210 22-inch CRT (carbon/silver)	230538-001
	P910 19-inch CRT (carbon/silver)	230535-001
	S710 17-inch CRT (carbon)	154499-002
	S510 15-inch CRT (carbon)	168636-002
MultiBay Hard Drives	30-GB SMART Hard Drive	212791-B25
	20-GB SMART Hard Drive	212790-B25
	10-GB SMART Hard Drive	212789-B25
MultiBay Storage Drives	CD-RW	136186-B25
	8X DVD-ROM Drive	138230-B25
	24X CD-ROM Drive	298452-B25
	2X SuperDisk LS-120	197895-B25
	Floppy Drive 1.44	226935-B25
	Iomega Zip 250 Drive	217387-B25
Other Storage Devices	IBM 1GB Microdrive (PC card Device)	217390-B25
Mobile Expansion Unit (MEU)	MEU with CD-RW drive and 1.44MB Floppy drive	234281-B25
	MEU with 8X DVD-ROM drive and 1.44MB Floppy drive	234280-B25
	MEU with 24X Max CD-ROM drive and 1.44MB Floppy drive	234279-B25
Connectivity	Compaq Type III Mini PCI 56K (V.90) Modem plus 10/100 IPSEC NIC Combo	225638-B31
	1394 PC Card	177593-B25
	For additional compatible PC Cards, view the Compaq PC Card Solutions List on the Compaq Web site at: http://www.compaq.com/support/techpubs/pcmcia/	
	Note: Designed only to allow faster downloads from V.90 compliant sources. Maximum achievable download transmission rates currently do not reach 56 KB/s, and will vary with line conditions. Modem only supports Windows 9.x and Windows NT 4.0.	

Options

Wireless Connectivity	802.11b MultiPort Wireless LAN module	233412-001
	Compaq WL110 Wireless LAN PC Card	191808-B21
	Compaq WL510 Wireless Enterprise Access Point	216709-001
	Compaq WL410 Wireless SMB Access Point	191811-001
	Compaq WL310 Home Office Access Point	191813-001
	Compaq Range Extender Antenna	230268-B21
Expansion Bases	ArmadaStation EM	383500-001
	ArmadaStation EM with NIC	120266-001
	ArmadaStation Tower Stand	123129-B25
	Convenience Base EM	382500-001
	Convenience Base EM with NIC	120971-001
	Convenience Base Monitor Stand	122931-B25
	Port Replicator EM	382300-001
	PCI IBM Token Ring Card	133749-B21
	PCI CardBus Reader	127397-B25
	Note: The Compaq *Evo* Notebook N400c requires the “NEW” optional Mobile Expansion Unit (MEU) for docking with any of the expansion bases listed above.	
Power	4 Cell primary li-ion battery (internal)	214805-B21
	4 Cell secondary li-ion battery (external)	236309-B25
	4 Cell secondary li-ion high capacity travel battery (external)	134099-B21
Common Armada Power Solutions	MultiBay Li-ion Battery (6-cells)	387937-B25
	External Battery Charger	135555-001
	AC Adapter 50W	120765-001
	Auto Power Adapter/Charger	401043-B25
	Aircraft Power Adapter	386504-B21
	AC Line Cord (10-ft/3.1 m)	217932-002
Input Devices	External Enhanced III Keyboard (carbon)	118003-008
	Compaq 2 Button Mouse (carbon)	103180-B21
	USB 2 Button Scroll Mouse (carbon)	195255-B25
	External 10-Key Numeric Keypad (carbon)	294317-B21
Security	Biometric PC Card	146805-B25
	Security Cable Lock	294316-B21
	Compaq Smart Card PC Card Reader	135646-B25

Options

Invaluable Accessories	MP1400 Microportable Projector	174626-001
	MP1800 Microportable Projector	180226-001
	MP2800 Microportable Projector	180228-001
	Multimedia Adapter & Remote Kit (*standard with the MP1800 optional for the MP1400*)	174963-001
	MP1600 Video Adapter	116298-001
	MP1600 Lamp replacement kit	118052-001
	MP1800/1400 Lamp replacement kit	189789-001
	MP2800 Lamp replacement kit	215464-001

Carrying Cases	Compaq Value Case	294266-B21
	Compaq Workstation Case	294267-B21
	Compaq Global Case	294268-B21
	Compaq Professional Case (nylon)	401366-B21
	Compaq Professional Case (leather)	401367-B21
	Compaq Evo Notebook N400c, Armada M300 and Armada M700 specific	
	Compaq M Series Portfolio Case	167337-B21
	Compaq Ultralight Case	167336-B21
	For additional Compaq Brand cases, call 1-800-888-5903.	

Memory

Compaq *Evo* Notebook N400c

STANDARD MEMORY

0 MB of memory on system board,
2 slots total
1 - 128MB DIMM installed in slot 1
1 Additional open Memory Slot

Memory	Slot 1	Slot 2
	128 MB	Empty

STANDARD MEMORY WITH OPTIONAL MEMORY UPGRADES

Support for up to 512 MB of SDRAM is available with the installation of optional SDRAM Memory Upgrades.

Up to	Slot 1	Slot 2
128 MB	128 MB	Empty
192MB	128 MB	64 MB
256 MB	128 MB	128 MB
320 MB	256 MB	64 MB
384 MB	256 MB	128 MB
512MB	256 MB	256 MB

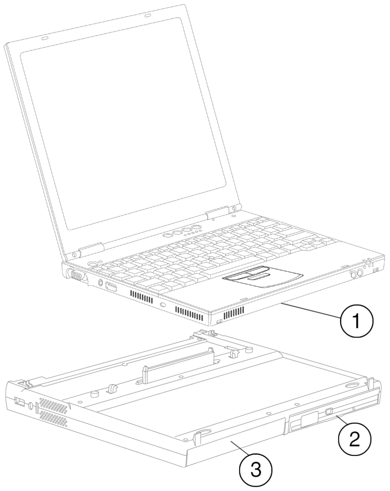
Note: This chart does not represent all possible memory configurations.

Following are memory options available from Compaq:

256-MB 100 MHz Memory Upgrade	161554-B21
128-MB 100 MHz Memory Upgrade	400313-B21
64-MB 100 MHz Memory Upgrade	400312-B21

Note: Due to the non-industry standard nature of some third-party memory modules, we strongly recommend using only Compaq branded memory modules to ensure compatibility.

Storage



1. Hard Drive
2. Multibay
3. Multibay

DRIVE SUPPORT

System Drive Support

Removable Media	Quantity Supported	Drive Bay Supported
1.44-MB Diskette Drive (optional)	Up to 1	External connects via parallel port

Hard Drives		
20-GB SMART Hard Drive	Up to 1	Hard Drive Bay

MEU Drive Support

Removable Media	Quantity Supported	Drive Bay Supported
1.44-MB Diskette Drive	Up to 1	MultiBay
CD-RW Drive	Up to 2	MultiBay
8X DVD-ROM Drive	Up to 2	MultiBay
24X Max CD-ROM Drive	Up to 2	MultiBay
Zip 250 Drive	Up to 2	MultiBay
2X LS-120 Super Disk Drive	Up to 2	MultiBay

Secondary Hard Drives		
10-GB SMART Hard Drive	Up to 2	MultiBay
20-GB SMART Hard Drive	Up to 2	MultiBay
30-GB SMART Hard Drive	Up to 2	MultiBay

Technical Specifications

System Unit	**Dimensions** (HxWxD)	12.1-inch TFT panel display	0.89 x 10.5 x 9.5 in/2.2 x 26.6 x 24.2 cm
	Weight	Min/Max	3.5 lbs/1.58 kg
	Stand-Alone Power Requirements	Nominal Operating Voltage (Li-Ion)	14.8 VDC
		Maximum Operating Power	40W
		Peak Operating Power	50W
	Temperature	Operating	50° to 95° F/10° to 35° C
		Non-operating	–4° to 140° F/–20° to 60° C
	Relative Humidity	Operating	10% to 90% relative humidity, non-condensing
		Non-operating	5% to 90% relative humidity, 101.6° F/38.7° C Maximum wet bulb temperature
	Shock	Operating	10 G, 11 ms, half-sine
		Non-operating	60 G, 11 ms, half-sine
	Vibration	Operating	0.5 G, 10 to 500 Hz, 0.5 Oct/Min sweep rate
		Non-operating	1.0 G, 10 to 500 Hz, 0.5 Oct/Min sweep rate
	Maximum Altitude (unpressurized)	Operating	0-10,000 ft/3,048 m (14.7 to 10.1 psia)
		Non-operating	0-30,000 ft/9,144 m (14.7 to 4.4 psia)

12.1-Inch Color TFT XGA Display	**Dimensions** (HxW)	10.3x7.8 in/26.1x19.9 cm	
	Diagonal Size	12.1 in/30.7 cm	
	Mounting	Internal	
	Number of Colors	16M	
	Contrast Ratio	125:1	
	Refresh Rate	60hz	
	Brightness	130 nit typical AC only/70 on battery115 nit minimum	
	Pixel Resolution	Pitch	0.264 x 0.264 mm
		Format	1024x768
		Configuration	RGB Stripe
	Backlight	CCFT	
	Character Display	80 x 25	
	Total Power Consumption	4W	

Technical Specifications

Hard Drives			
20 GB	**Capacity**	20 GB	
	Height	0.374 in/9.5 mm	
	Width	2.5 in/70 mm	
	Interface	ATA	
	Transfer Rate Synchronous (Maximum)	66.6 MB/s (Drive Capability)	
	Seek Time (typical reads, including settling)	Single Track	3 ms
		Average	12 ms (read)
		Full-Stroke	23 ms
		Rotational Speed	4200 rpm
	Logical Blocks	~39,070,080	

External AC Adapter	**Weight**	0.39 lb/0.18 kg	
	Power Supply (Input)	Operating Voltage	90 to 260 VAC RMS
		Operating Current	1.3 A RMS
		Operating Frequency Range	47 to 63 Hz AC
		Maximum Transient	4/50 kV

Technical Specifications

Internal Li-Ion Battery Pack	**Weight**	0.49 lb/0.22 kg	
	Cells	4 Li-ion	
	Energy	Voltage	14.4 V
		Amp-hour capacity	1.96 Ah
		Watt-hour capacity	28Wh
	Temperature	Operating	41° to 95° F/5° to 35° C
		Non-operating	–4° to 140° F/–20° to 60° C

Secondary Li-Ion Battery Pack	**Dimensions** (HxWxD)	0.9 x 10.47 x 0.9 in/2.3 x 26.6 x 2.3 cm	
	Weight	0.48 lb/0.21 kg	
	Cells	4 Li-ion	
	Energy	Voltage	14.4 V
		Amp-hour capacity	1.96 Ah
		Watt-hour capacity	28Wh
	Temperature	Operating	41° to 95° F/5° to 35° C
		Non-operating	–4° to 140° F/–20° to 60° C

Secondary High Capacity Li-Ion Battery Pack	**Dimensions** (HxWxD)	1.8 x 10.6 x 1.2 in/4.6 x 26.6 x 2.3 cm	
	Weight	0.93 lb/04.2 kg	
	Cells	4 Li-Ion	
	Energy	Voltage	14.4 V
		Amp-hour capacity	2.87Ah
		Watt-hour capacity	349 Wh
	Temperature	Operating	41° to 95° F/5° to 35° C
		Non-operating	–4° to 140° F/–20° to 60° C

Type III Mini PCI 56K (V.90) Modem plus 10/100 NIC Combo	Form Factor	Mini-PCI Type III per Specification
	OS Support (with all released Service Packs)	Windows 98 (Gold, SE), Windows NT4.0, Windows 2000, Windows Millennium Edition, DOS Application Support under Windows
	Power Management Support	APM Revision 1.2, ACPI, Compaq Power Management Extensions for Windows NT
	Approvals/Certifications	UL, CSA, NEMKO, CCIB, Industry Canada, FCC Part 68, CTR21, FCC Part 15 Class B, Canadian ICES-003 Class B, C.I.S.P.R.22, Australian ACA, CE Mark, Other Countries
	Modem Device Driver Name	Lucent Win Modem
	Data Mode Capabilities	V.90 (a-law, mu-law) K56flex (a-law, mu-law) V.8bis V.80 V42.bis, MNP5 (Compression) V.42 (LAPM, MNP2-4) (Error Correction) V.34 (file date: 10/96) Optional symbol rates: 2800, 3429 Asymmetric Symbol rates Synchronous primary channel data signaling rates: 3600, 31200 Automatic rate re-negotiation V.32bis V.32 V.23 V.22bis V.22 V.21 Bell 212A Bell 103J
	Fax Mode Capabilities	TIA-578-S (Class 1) T.30, T.4 (Group 3) V.17 V.29 V.27ter V.21 Channel 2
	Command Set	V.250 (Partial) TIA-602 Identification: +GMI, +GMM, +GMR Port control: +IPR, +ICF, +IFC, + Iirr Modulation: +MS, +MR, +MA Error control: +ES, +ER, +EB, +ESR, +ETBM Data compression: +DS, +DR V.251

Technical Specifications

Type III Mini PCI 56K (V.90) Modem plus 10/100 NIC Combo *(continued)*

NIC Device Driver Name	Intel PRO/100 P Mobile Combo Adapter
Data Link Layers	IEEE 802.2 LLC SNAP
Ethernet Features	10 Mb/s Ethernet: IEEE 802.3 standard 10BASE-T 100 Mb/s Ethernet: IEEE 802.3u standard 100BASE-TX Full Duplex at 10 and 100Mb/s Auto-Negotiation Wake on LAN from all power managed states, including soft off (S5) Boot on LAN from OFF Lower Power State on Link Loss
Software support	IBM LAN Server Version 1.2, 1.3, 2.0, 4.0 Microsoft NT 3.51, NT 4.0. Windows 2000 Novell Netware 3.1x, 4.x, 5.x
Protocol support	TCP/IP Novell IPX/SPX and Microsoft compatible Novel IPX ODI Microsoft NetBEUI IBM DLC

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